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PHOTOELECTRIC OBSERVATIONS OF EV Lac

The results of photoelectric observations of the flare star EV Lac carried out at the Crimean Astrophysical Observatory in the period of 6-26 August 1969 are given here.

The observations were obtained in the B-band with the 64 cm meniscus telescope. The time coverage is shown in Table 1. The total coverage was 48^h15^m, and 15 flares were observed. Table 2 contains the flare characteristics according to (1). The light curves of the flares have the relative intensities $(I_{0+i} - I_0)/I_0$ as ordinates and Universal Time as abscissae.

Fig.1

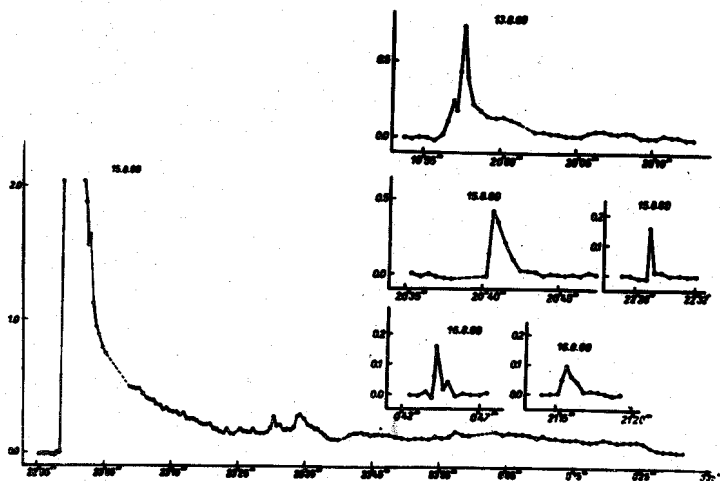


Table 1.

Date 1969 August	Coverage U.T.
6	22.18-34, 22.36-55, 22.57-23.15
8	20.24-21.36, 21.38-59, 22.01-09, 23.12-37
9	00.07-14, 00.16-1.10, 01.12-14, 21.17-25, 21.32-44, 21.47-23.20, 23.43-23.51, 23.56-24.00
10	00.00-00.06, 00.07-00.32, 00.33-00.52, 00.53-1.10, 1.12-17, 19.37-40, 19.42-57, 19.59-20.02,
11	18.27-29, 18.31-49, 18.51-55, 18.58-19.04, 19.05-07, 19.09-13, 19.23-42, 19.44-52, 19.55-20.11, 20.13-33, 20.34-55, 20.57-21.18, 21.20-27, 21.28-41, 21.43-22.02, 22.03-20, 22.27-31, 22.55-59,
12	19.39-57, 19.58-20.16, 20.17-39, 20.41-21.06, 21.07-16, 21.55-58, 22.38-47, 22.48-11, 23.15-35,
13	00.03-23, 00.25-47, 00.49-01.01, 01.03-10, 18.50-53, 18.55-19.13, 19.14-16, 19.18-40, 19.41-20.31, 20.33-53, 21.01-22, 21.24-46, 21.47-22.16, 22.18-56, 23.06-16, 23.48-60,
14	00.00-10, 00.11-32, 00.33-54, 00.56-01.05, 01.06-15, 21.20-25, 21.27-49, 22.22-29, 22.30-40,
15	18.19-26, 18.27-49, 18.50-58, 20.33-38, 20.40-60, 21.07-30, 21.31-44, 21.45-52, 21.54-22.16, 22.17-36, 22.38-59, 23.02-05, 23.08-41, 23.42-00.02,
16	00.04-33, 00.39-01.00, 01.10-13, 01.15-22, 01.24-30, *(19.34-46, 19.47-20.17, 20.21-24, 20.26-28, 20.43-49, 20.50-21.11, 21.12-21, 21.23-33, 21.35-55, 21.56-22.19, 22.20-25, 22.55-59)
17	*(21.19-21, 21.22-44, 21.45-22.12, 22.30-48, 22.49-23.14, 23.16-17, 23.18-38, 23.39-00.06)
18	00.10-31, 00.33-38, 00.40-56, 01.00-03, 01.04-15, 01.16-22, 01.23-29, 01.31-36, 21.02-07, 21.10-15, 21.22-29, 21.30-33, 21.35-51, 21.54-58, 22.00-06,
20	21.18-23, 21.24-45, 21.46-22.08, 22.15-21,
21	18.13-18, 18.19-26, 18.28-50, 18.55-19.17, 19.18-39, 19.40-20.01, 20.02-25, 20.27-47, 20.48-51, 21.12-21, 21.22-46, 21.47-22.08, 22.09-32, 22.34-37, 22.45-59, 23.00-22, 23.23-46, 23.47-56, 23.58-00.09,
22	00.10-32, 00.34-49, 00.55-58, 00.59-01.09, 01.14-25, 01.26-35,

*Cirrus

Date
1969
August

Coverage U.T. (cont.)

23 18.11-13, 18.20-30, 18.37-58, 19.00-22, 19.23-32,
21.55-22.01, 22.02-25, 22.52-23.14, 23.15-36, 23.37-58
24 00.00-20, 00.23-44, 00.46-01.09, 01.11-23, 01.27-32,
01.33-40, 18.28-48, 18.49-10, 19.12-45, 19.52-20.09,
20.11-26, 20.28-42, 20.45-21.08, 21.10-30, 21.32-52,
21.53-22.15, 22.18-33, 22.34-51, 22.52-23.13, 23.17-30,
23.32-55, 23.57-00.18,
25 00.19-28, 00.29-40, 01.30-37, 01.39-43, 21.23-22.34,
22.37-52, 22.54-59, 23.35-56, 23.57-00.11,
26 00.13-28, 00.30-38, 00.40-1.00

Fig.2

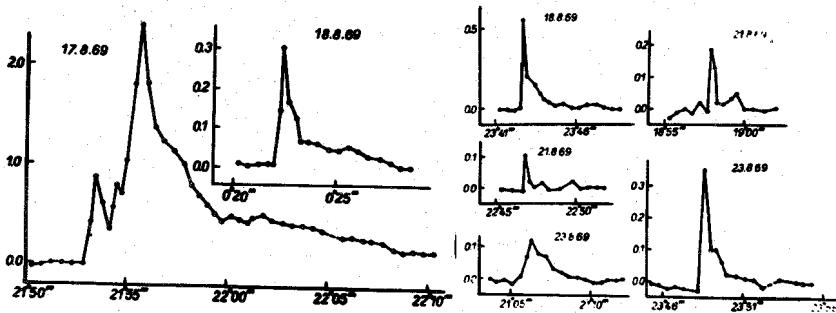


Fig.3

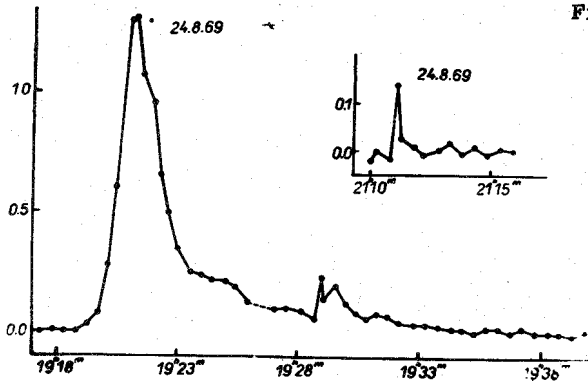


Table 2.

Date and U.T. of flare maximum 1969 August	Duration before after maximum		m	m _{lim}	Integr. int. min.	Air mass
	t _b	t _a				
13 19 ^h 57 ^m 6	1 ^m 6	12 ^m 4	0.60	0.03	1.34	1.42
15 20 40.7	0.4	1.8	0.38	0.03	0.46	1.27
22 29.0	0.2	1.0	0.12	0.04	0.05	1.05
23 00.0*	<3.0	>26.0	>1.21	0.02	>25.8	1.03
16 00 44.1	0.2	1.1	0.16	0.02	0.07	1.01
21 15.8**	0.5	2.0	0.10	0.02	0.09	1.09
17 21 55.7**	2.8	>14.5	1.27	0.07	>10.20	1.09
18 00 22.4	0.5	5.5	0.28	0.03	0.32	1.00
21 43.0	0.2	3.0	0.48	0.03	0.33	1.02
21 18 57.9	0.2	2.1	0.19	0.02	0.14	1.30
22 47.0	0.2	1.2	0.11	0.02	0.03	1.00
23 21 06.0	0.7	2.4	0.12	0.02	0.17	1.12
23 48.0	0.3	2.9	0.32	0.02	0.24	1.00
24 19 20.0	2.3	13.8	0.91	0.02	3.65	1.10
21 11.0	0.2	0.9	0.14	0.02	0.04	1.04

* Record out of scale

** Cirrus

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(1) A.D. Andrews, P.F.Chugainov, R.E.Gershberg, V.S.Osmanjan
I.B.V.S. No.326, 1969.